



8/5/15

Water Enhancers (Gels) for Wildland Fire Management

Qualified By US Forest Service in Accordance with Forest Service Specification 5100-306A as Amended

These products are evaluated, qualified, and approved for use only at the specified mix ratio range with the indicated application equipment.

Consult individual agencies for specific policies relating to water enhancer use. Please review the Notes for Selection and Use.

Chemical	Mix Ratio ¹		Qualified Applications ²				
			Fixed-Wing Airtanker		Helicopters		Ground Engine
			Multi Engine	SEATS	Fixed-Tank	Bucket	
Uncolored							
Chemdal Aqua Shield 100	0.4%–1.2%	[0.03-0.10 lb/gal]	3	●	-	●	●
Sold as Phos-Chek AquaGel-K	0.4%–1.2%	[0.03-0.10 lb/gal]	3	● 4	-	●	●
Sold as FireOut Ice	0.4%–1.2%	[0.03-0.10 lb/gal]	3	●	-	●	●
Barricade II	1.0%		3	● 4	-	●	●
Barricade II	1.0%–3.0%		-	-	-	●	●
Thermo-Gel 200L	0.5%–3.0%		3	● 4	-	●	●
Thermo-Gel 500P	0.4%–0.5%	[0.03-0.04 lb/gal]	3	● 4	●	●	●
Thermo-Gel 500P	0.4%–1.2%	[0.03-0.10 lb/gal]	3	● 4	-	●	●
Wildfire AFG Firewall II	0.25%–3.0%		3	● 4	●	●	●
BioCentral Blazetamer 380	0.65%		3	●	●	●	●
FireIce	1.4%-2.1%	[0.12–0.18 lb/gal]	3	● 4	-	●	●
Phos-Chek Insul-8	0.37%		3	●	●	●	●
Phos-Chek Insul-8	0.37%-1.0%		3	●	-	●	●
Phos-Chek Insul-8	0.37%-3.0%		-	-	-	●	●
Thermo-Gel 300L	0.5%–3.0%		3	● 4	-	●	●

- Notes**
- 1 Each product is qualified for the specified mix ratio or range. Mixtures **outside the mix ratio or mix ratio range shown** are **not** qualified for use. Mix ratio is described as the percentage of product in water. Mix ratios for dry concentrates may also be described as pounds of concentrate added to 1 gallon of water. This description is shown in brackets.
 - 2 Qualification Notes
 - Fully Qualified – Product complies with all requirements of a formal specification.
 - Conditional Approval – Product complies with all requirements in the specification for laboratory evaluation; a field evaluation is required for full qualification. Evaluations from the field are requested regarding effectiveness, ease of use and mixing. (Evaluation forms are available at www.fs.fed.us/rm/fire/wfcs/tests/index.htm. Select "Water Enhancer Evaluation" under Section 12 – Operational Field Evaluation Test.)
 - Not qualified for this application.
 - 3 Forest Service policy does not allow application of water enhancers from large airtankers. These products meet the requirements for application from multi-engine aircraft for those agencies whose policy permits this use.
 - 4 Colored experimental products may be used within a controlled study to determine visibility as required by the specification.



8/5/15

Colored Water Enhancers (Gels) for Wildland Fire Management

Qualified By US Forest Service in Accordance with Forest Service Specification 5100-306A as Amended

These products are evaluated, qualified, and approved for use only at the specified mix ratio range with the indicated application equipment.

Consult individual agencies for specific policies relating to water enhancer use. Please review the Notes for Selection and Use.

<u>Chemical</u>	<u>Mix Ratio</u> ¹	<u>Qualified Applications</u> ²				
		Fixed-Wing Airtanker		Helicopters		Ground Engine
		Multi Engine	SEATS	Fixed-Tank	Bucket	
Colored – Specific colors are evaluated for use with specific products. Using a color qualified with one product in another product without further testing does not make a qualified product.						
Thermo-Gel 200L AV-B1 (Blue)	0.5%–3.0%	3	●	-	●	●
Add TG 200L concentrate to a mix of 0.1125% AV-B1 in water						
Firelce Cool Blue-F	1.4%-2.1% [0.12–0.18 lb/gal]	3	○	-	○	○
Add Firelce concentrate to a mix of 2.0 g of Cool Blue-F per gallon of water						
Firelce Sunset Orange-F	1.4%-2.1% [0.12–0.18 lb/gal]	3	○	-	○	○
Add Firelce concentrate to a mix of 2.0 g of Sunset Orange-F per gallon of water						
Notes						
1 Each product is qualified for the specified mix ratio or range. Mixtures outside the mix ratio or mix ratio range shown are not qualified for use. Mix ratio is described as the percentage of product in water. Mix ratios for dry concentrates may also be described as pounds of concentrate added to 1 gallon of water. This description is shown in brackets.						
2 Qualification Notes						
<ul style="list-style-type: none"> ● Fully Qualified – Product complies with all requirements of a formal specification. ○ Conditional Approval – Product complies with all requirements in the specification for laboratory evaluation; a field evaluation is required for full qualification. Evaluations from the field are requested regarding effectiveness, ease of use and mixing. (Evaluation forms are available at www.fs.fed.us/rm/fire/wfcs/tests/index.htm. Select "Water Enhancer Evaluation" under Section 12 – Operational Field Evaluation Test.) - Not qualified for this application. 						
3 Forest Service policy does not allow application of water enhancers from large airtankers. These products meet the requirements for application from multi-engine aircraft for those agencies whose policy permits this use.						
4 Colored experimental products may be used within a controlled study to determine visibility as required by the specification.						
Color Notes						
Each water enhancer listed is qualified for use with a specific amount of specific colorant(s) which is blended with the water prior to adding the water enhancer concentrate						
Thermo-Gel 200L – The colored product is prepared by adding 0.1125% of the AV-B1 color to water and mixing thoroughly. The colored water is used to dilute the Thermo-Gel 200L concentrate to an approved concentration as noted above.						
GelTech Firelce – The colored product is prepared by adding 2.0 grams of one of the approved colors to water and mixing thoroughly. The colored water is used to dilute the GelTech Firelce concentrate to an approved concentration as noted above.						